MITSUBISHI MOTOR SALES OF AMERICA, Inc.

TECHNICAL SERVICE BULLETIN

SUBJECT:

MPI SYSTEM DIAGNOSIS — SERVICE MANUAL REVISION

NO.	TSB-89-16-003
DATE	June, 1989
MODEL	Galant, Mirage, Montero

TSB Revision 89-16-003

PURPOSE

This bulletin describes Service Manual corrections of the MPI system component test procedures. As a reference to this bulletin, please write the TSB number in the TSB Revision box at the bottom of the affected page.

AFFECTED SERVICE MANUALS

1989 Galant Service Manual Volume 1, Page 14-81
1989 Mirage Service Manual Volume 1, Page 14-78
1989 Montero Service Manual Volume 1, Page 14-88, 14-94

SERVICE MANUAL CORRECTIONS

1989 MIRAGE SERVICE MANUAL, Page 14-81

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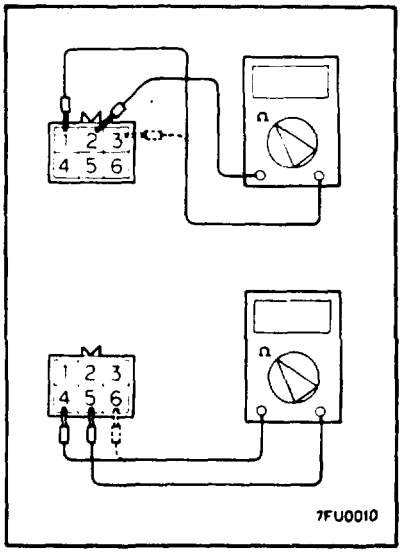

steps are exactly coincident with engine speeds. [Refer to inspection procedures (Using multi-use tester – Actuator).]

CHECKING COIL RESISTANCE

(1) Disconnect the idle speed control servo connector, and connect the special tool (harness connector) to the connector on the idle speed control servo side.

(2) Measure the resistance between terminal 2 (white clip of special tool) and terminal 1 (~~blue~~ clip) or terminal 3 (~~red~~ clip) of connector on servo side.

Standard resistance: 28 – 33 Ω [at 20°C (68°F)]

(3) Measure the resistance between terminal 5 (green clip of special tool) and terminal 6 (~~black~~ clip) or terminal 4 (~~yellow~~ clip) of the connector on servo side.

Standard resistance: 28 – 33 Ω [at 20°C (68°F)]

red
blue
black
yellow

Continued . . .

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FILE UNDER: Group 16 Engine Electrical in the **Dealer Service Information** Binder.

CIRCULATE TO:

- ☐ GENERAL MANAGER
- ☐ PARTS MANAGER
- ☑ TECHNICIAN
- ☐ SERVICE ADVISOR
- ☑ SERVICE MANAGER
- ☐ WARRANTY PROCESSOR
- ☐ SALES MANAGER

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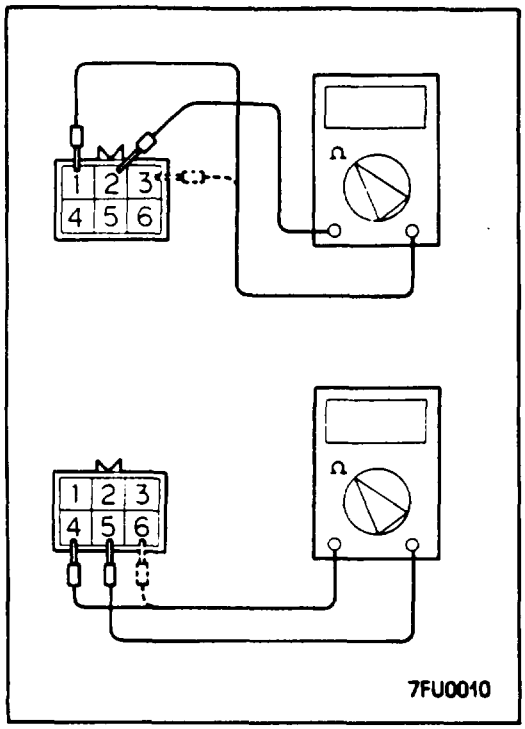
1989 GALANT SERVICE MANUAL, Page 14-78



the stepper motor's step and the engine rpm.
(Refer to the sub section "Actuator" of the section concerning checking by the multi-use tester.)

COIL RESISTANCE CHECK

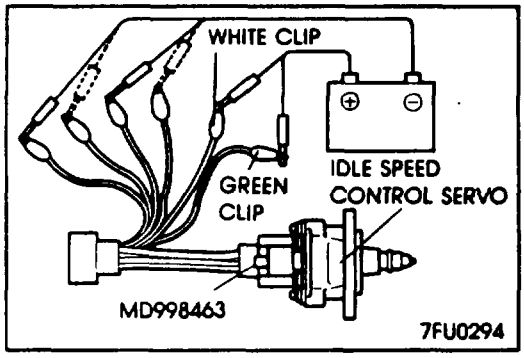
(1) Disconnect the ISC servo connector and connect the special tool (test harness).
(2) Measure the resistance between terminal ② (white clip of the special tool) of the connector at the ISC servo side and terminal ① (~~blue~~ clip) or terminal ③ (~~red~~ clip).

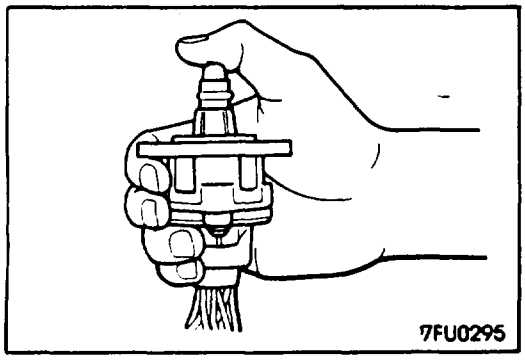
Standard value: 28–33 Ω [at 20°C (68°F)]

(3) Measure the resistance between terminal ⑤ (green clip of the special tool) of the connector at the ISC servo side and terminal ⑥ (~~black~~ clip) or terminal ④ (~~yellow~~ clip).

Standard value: 28–33 Ω [at 20°C (68°F)]

1989 MONTERO SERVICE MANUAL, Page 14-88





(3) Connect the special tool (test harness) to the Idle speed control servo connector.
(4) Connect the positive ⊕ terminal of a power source (approx. 6V) to the white clip or the green clip.
(5) Holding the Idle speed control servo as shown in the illustration, connect the negative ⊖ terminal of the power source to each clip in the sequence described below, and check whether or not there is vibration (a feeling of very slight shaking of the stepper motor) as a result of activation of the stepper motor.
   ① Connect the negative ⊖ terminal of the power source to the ~~red~~ and yellow clips.
   ② Connect the negative ⊖ terminal of the power source to the red and yellow clips.
   ③ Connect the negative ⊖ terminal of the power source to the red and black clips.
   ④ Connect the negative ⊖ terminal of the power source to the blue and black clips.
   ⑤ Connect the negative ⊖ terminal of the power source to the blue and yellow clips.
   ⑥ Repeat the test in the reverse (⑤–①) sequence.
(6) If, as a result of this test, vibration is felt, the stepper motor can be considered to be normal.

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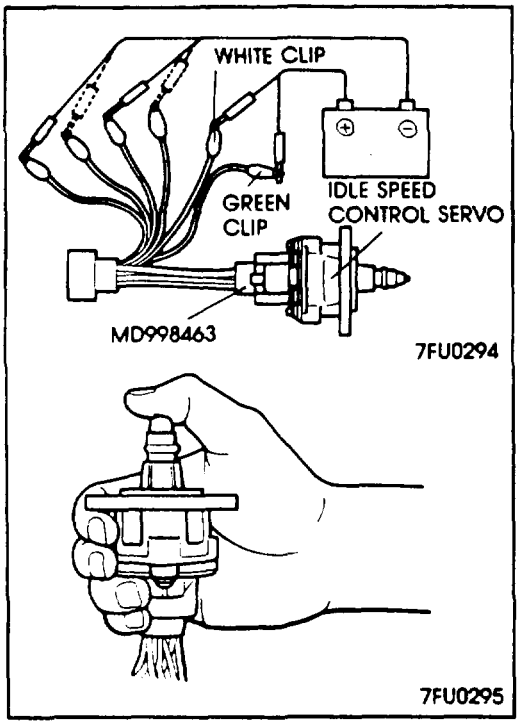

IDLE SPEED CONTROL SERVO ASSEMBLY OPERATION TEST

(1) Connect the special tool (test harness) to the Idle speed control servo connector.
(2) Connect the positive ⊕ terminal of a power source (approx. 6V) to the white clip or the green clip.
(3) Holding the Idle speed control servo as shown in the illustration, connect the negative ⊖ terminal of the power source to each clip in the sequence described below, and check whether or not there is vibration (a feeling of very slight shaking of the stepper motor) as a result of activation of the stepper motor.
    ① Connect the negative ⊖ terminal of the power source to the ~~red~~ and yellow clips.
    ② Connect the negative ⊖ terminal of the power source to the red and yellow clips.
    ③ Connect the negative ⊖ terminal of the power source to the red and black clips.
    ④ Connect the negative ⊖ terminal of the power source to the blue and black clips.
    ⑤ Connect the negative ⊖ terminal of the power source to the blue and yellow clips.
    ⑥ Repeat the test in the reverse (⑤–①) sequence.
(4) If, as a result of this test, vibration is felt, the stepper motor can be considered to be normal.

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